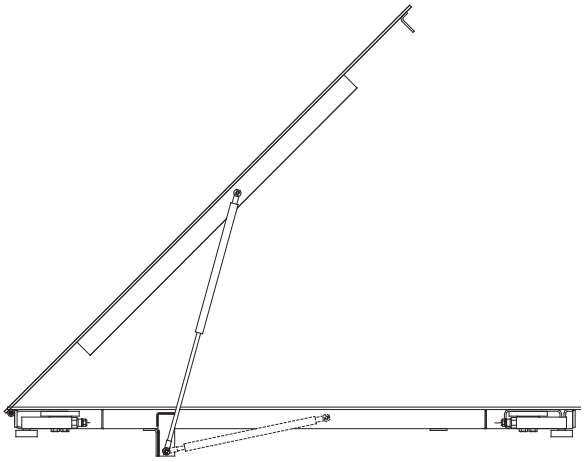
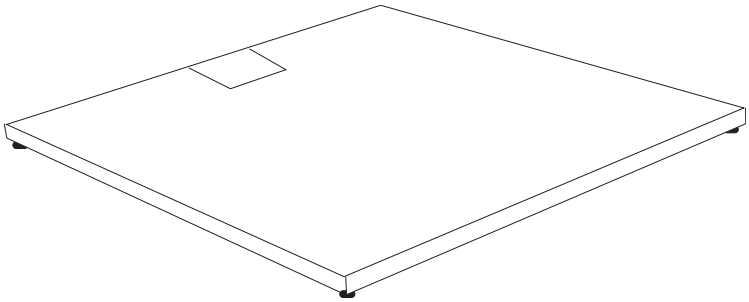
FAIRBANKS SCALES

Installation Manual

Aegis
Stainless Steel Floor Scale





© 2007 by Fairbanks Scales Inc.
All rights reserved

51103
Revision 1 01/07

Amendment Record

Aegis Stainless Steel Floor Scale
51103

Manufactured by Fairbanks Scales Inc.
821 Locust
Kansas City, Missouri 64106

Revision 0	01/07	Preliminary Release
Revision 1	01/07	Manual Release

Disclaimer

Every effort has been made to provide complete and accurate information in this manual. However, although this manual may include a specifically identified warranty notice for the product, Fairbanks Scales makes no representations or warranties with respect to the contents of this manual, and reserves the right to make changes to this manual without notice when and as improvements are made.

Table of Contents

Section 1: General Information

A. Introduction 4
B. Description 4
C.Specification 4

Section 2: Installation

A. General Service Policy 5
B. Overview 5
C. Pre-Installation Checklist 6
D. Unpacking 7
E. Safety 7
F. Setup 7
i. Analog Interface (Junction Box 67171) 8
ii. Intalogix Technology Interface (QMB 15291) . . . 9

Section 3: Accessories Installation

A. Bolt-Down Plates 11
B. Ramps 11
C. Bumper Guards 11
D. Pit Frames 12

Section 4: Maintenance and Service

A. Load Cell Replacement 14
B. Junction Box/QMB PCB Replacement 15
C. Foot Assembly Replacement 16

Section 5: Parts

A. Stainless Steel Platforms 17
Diagram: Stainless Steel models 18
B. Stainless Steel Lift Deck Platforms 19
Diagram: Stainless Steel 3’ x 3’ and 4’ x 4’ models . . . 20
Diagram: Stainless Steel 5’ x 5’ models 21

APPENDIX I: Model Matrix 22
APPENDIX II: Accessories 23
APPENDIX III: Standard Pit Frame and Installation Drawing . . . 24
APPENDIX IV: Lift Deck Pit Frame Installation Drawing 25

Section 1: General Information

A. Introduction:

The Aegis Stainless Steel floor scale features a rugged structural rib design and a nominal height of three inches -- among the lowest in the industry. With a full range of accessories, these scales can be configured to fit most floor scale applications.

B. Description:

The Aegis Industrial Stainless Steel series floor scale platform is fully assembled and pre-wired. Aegis stainless steel floor scale sizes range from 30" x 30" to 6' x 8', and have capacities from 1000 to 10,000 lbs.

The Aegis Lift Deck Floor Scale is another addition to Fairbanks' Aegis line of floor scales. It is designed to offer a safe and convenient way to lift the deck of the scale to facilitate cleaning. The Aegis Lift Deck Floor Scale is for pit installation only.

The Aegis floor scales use a standard summing junction box to interface with analog indicators, and is equipped with a 25' interface cable. Junction boxes are constructed of stainless steel, and all models have threaded holes in the decks for attaching eyebolts to facilitate installation and cleaning.

C. Specifications:

Models and sizes are included in a chart in Appendix II.

Description	Aegis Stainless Steel
Platform deck plate	0.25”
Platform height	3.0”
Operating temperature	15º to 104º F
	-10º to 40º C
Humidity	100% suitable for water washdown
Overload capacity	150% of rated capacity
Endloading capacity	100% of rated capacity
Construction	Type 304 stainless steel
Grade level	Within 3º of level

Section 2: Installation

A. General Service Policy:

Prior to installation, it must be verified that the equipment will satisfy the customer's requirements as supplied, and as described in this manual. If the equipment cannot satisfy the application, and the application cannot be modified to meet the design parameters of the equipment, the installation should not be attempted.

It is the customer/operator's responsibility to ensure the equipment provided by Fairbanks is operated within the parameters of the equipment's specifications and protected from accidental or malicious damage. Other than the procedures authorized in the Operating manual, no service, repair, or adjustments may be performed by unauthorized/untrained service personnel. Any unauthorized repairs will void any verbal, implied, or written warranties.

B. Overview:

1. These instructions apply to the floor scale and its specific installation procedures. The instructions include a pre-installation checkout, which must be performed either at the service center before the technician goes to the site, or at the site before he places the equipment in service.

2. All electronic and mechanical calibrations and/or adjustments required to make this equipment perform to accuracy and operational specifications are considered to be part of the installation, and are included in the installation charge. Only those charges which are incurred as a result of the equipment's inability to be adjusted or calibrated to performance specifications may be charged to warranty.

3. Absolutely no physical or electrical modifications other than selection of standard options and accessories are to be made to this equipment. Electrical connections other than those specified may not be performed, and physical alterations (holes, etc.) are not allowed.

4. Before the installation is considered complete, the equipment is to be installed to satisfy any applicable Weights and Measures requirements. The installing technician is responsible to make certain that personnel are fully trained and familiar with the capabilities and limitations of the equipment. Be prepared to recommend the arrangement of components which will provide the most efficient layout, utilizing the equipment to the best possible advantage. The warranty policy must be explained and reviewed with the customer.

The complete installation consists of:

1. Verifying the application
2. Unpacking
3. Floor scale checkout
4. Customer and site readiness:
   a. Is the Location ready?
   b. Is the customer aware there may be work disruptions?
   c. Are the operators available for training?
5. Floor scale connections
6. Adjustments
7. Customer training

NOTE: *It is the owner's responsibility to document, notify, and follow-up with the carrier if there is shipping damage.*

NOTE: *Above ground installations require the scale platform be protected from mobile machinery that may be present in the area. Fairbanks Scales is not responsible for damages to unprotected platforms in above ground installations.*

C. Pre-Installation Checklist:

The following points should be checked and discussed with the Area Sales Manager and/or the customer, if necessary, before the technician goes to the site to install the equipment.

1. Has the customer's application been checked to make certain that it is within the capabilities and design parameters of the equipment?

2. If the installation will disrupt the customer's normal operations, is he aware and has he made arrangements?

3. Is properly grounded power available at the installation location?

4. Will the equipment operator(s) be available for training?

5. Has the service technician thoroughly reviewed the installation procedures?

6. Has the service technician reviewed the recommended setup with the Area Sales Manager or Area Service Manager, and identified all necessary variations to satisfy the customer's specific application?

D. Unpacking:

1. Check that all components are on hand, and agree with the customer's order.

2. Remove all components from their packing material, checking to make certain that all parts are accounted for and no parts are damaged. Advise the shipper immediately if damage has occurred. Order any parts necessary to replace those which have been damaged. Keep the shipping container and packing material for future use. Check the packing list.

3. Collect all necessary installation manuals for the floor scale.

4. Examine the floor scale and perform an inspection, making certain that all hardware, electrical, and PC connections are secure.

E. Safety:

As is the case with any equipment, certain safety precautions should be observed during operation:

1. Ensure that any structure which supports the floor scale is capable of withstanding the weight of the scale and its rated capacity.

2. Beware of pinch points on the lift deck models. Severe personal injury could occur if safety precautions are not observed.

3. Use proper lifting technics when raising the lift deck platforms.

F. Setup:

The setup of the floor scale consists of installing the scale on a level surface and wiring the scale to the indicator. Consult the appropriate indicator manual for further information regarding the indicator and its setup.

1. Select a location that is level and will fully support the weight of the platform plus a full capacity load.

2. Remove the top of the crate and all packing/banding material.

3. Screw two (2) eyebolts into the threaded adapters in the platform top and use a forklift or other lifting means along with chains, cables, or nylon straps to remove the scale from the crate.

CAUTION: *Do NOT use grab or slip hooks to lift the scale. Failure to use the proper lifting tools may result in personal injury.*

4. Set the scale so that the interface cable exits in a direction where it can be protected. If possible, use a cable protector to reduce 'trip' hazards and to protect the interface cable from being damaged.

5. Level the scale by turning the foot pads.

6. Wire the scale cable to the proper type indicator as follows:

NOTE: *The analog junction box and the QMB interface box on the Lift Deck models are mounted remotely on a wall location. The boxes must be located above the splash line and in a secure area away from material handling traffic.*

i. Analog Interface (Junction Box 67171):

L/C Wire Color	Function	Analog Instrument
Black	(-) Excitation	(-) Excitation
Green	(+) Excitation	(+) Excitation
Yellow	Shield	Shield
White	(+) Signal	(+) Signal
Red	(-) Signal	(-) Signal

ii. Intalogix™ Technology Interface (QMB 15291):

QMB Terminal	Wire Color	Function	Intalogix™ Technology Inst
1	Green	(-) Excitation	1
2	Red	(+) Excitation	2
3	Black	Ground	3
4	White	D out	4
5	Brown	D In	5
6	Blue	EOC	6
7	Orange	SCLK	7
8	Yellow	CS	8
9	Violet	Temperature	9
10	Gray/Shield	Chassis	10

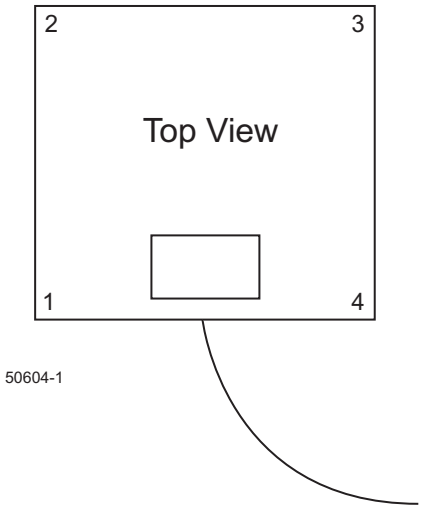
NOTE: 1. *If the Gray/Shield wire is equipped with a screw lug, it can be attached using one of the PCB screws.*

2. *Calibrate the Intalogix™ platform/indicator. Follow the calibration procedure in the appropriate indicator service manual.*

7. Adjust the analog indicator to the platform. First, ensure all corners are within one division of each other at 25% of the rated capacity specification. Follow the calibration procedure in the appropriate indicator service manual to ensure a good calibration.

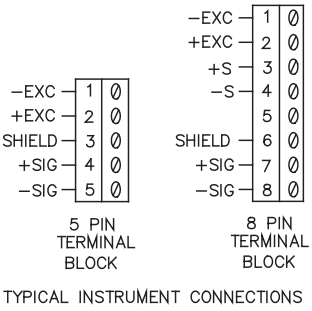
   a. Perform a coarse platform calibration approximate to the actual weight.

   b. Identify the platform corner numbers.



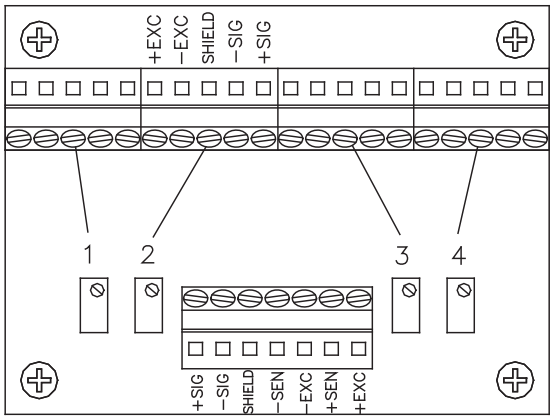
c. Cornering the scale: Place a load which is 25% of platform capacity upon the scale at the corner 1 location. Note the indication. Proceed to each successive corner with the weight and note each indication.
If corners require adjustment, place the load on the corner displaying the lowest weight and use the appropriate potentiometer to change the displayed weight to read the same as the highest reading by turning the potentiometer clockwise (CW). Repeat the process, rechecking all corners until there is no error. Perform a zero reference check with an unloaded platform, then repeat the corner test to ensure all readings are the same before proceeding.
Upon completing corner adjustments, check the zero reference of the scale and adjust if necessary.
When the corners are the same in reference to each other, final calibration may be accomplished as follows:

1. Remove all weights.
2. Zero the indicator.
3. Perform the full scale calibration with test weights.
4. Follow the appropriate indicator service manual to ensure proper calibration.



TYPICAL INSTRUMENT CONNECTIONS

50604-4



JUNCTION BOX CONNECTIONS

NOTE: *The platform junction box is preset at the factory by centering the adjusting pots. Minimal corner adjustment should be required.*

NOTE: *Junction box assembly 67171 has four (4) extended range, multi-turn potentiometers, one for each load cell. If you have difficulty adjusting the corners on the platform, turn all potentiometers to the fully counter clockwise (CCW) position until an audible clicking sound is heard when turned. With the weight on the lowest reading corner, adjust the corresponding potentiometer clockwise (CW) to indicate the same as the highest reading corner. Continue this process until each corner is correct.*

Section 3: Accessories Installation

Bolt-down plates, ramps, bumper guards, and pit frames are installed as follows:

A. Bolt-Down Plates:

Bolt down plates are used to keep the scale from sliding or moving when loads are applied. The plates are bolted via anchors at each of the scale's feet.

Installation:

1. Place the platform in position.

2. Place the bolt-down plate under the foot, plate edge extending out from under the scale.

3. Drill the two holes using a hammer drill. Insert anchors with the nut and washer already ON. Tap the anchor into the hole, then tighten the nuts securely. Repeat this process for each plate used.

NOTE: *If ramps are NOT installed and bolt-down plates are necessary, a set of four (4) bolt-down plates is required. See Appendix II B.*

B. Ramps:

Each ramp accessory comes with two integral bolt-down plates and four (4) anchors.

Installation:

1. Place the ramp in position, then lift and set the platform feet into the bolt-down plate holes.

2. Drill the two holes using a hammer drill. Insert anchors with the nut and washer already ON. Tap the anchor into the hole, then tighten the nuts securely.
   - If two ramps are installed, NO bolt-down plates are required.
   - If one ramp is installed, a set of two bolt-down plates is required.
   - Only two ramps total may be installed on opposite sides of a scale platform.

C. Bumper Guards:

Bumper Guards are designed to help protect the platform from forklift traffic. The guards are slightly higher than the scale, and will help deflect the forks.

1. Place the bumper guard so it will protect the platform from non-scale traffic, but it cannot contact or interfere with the platforms movement.

2. Drill holes using a hammer drill or its equivilent. Clean the hole thoroughly. Insert the anchor(s) with the nut and washer in place. Tap the anchor(s) into the hole(s) and tighten the nuts securely.

D. Pit Frames:

The pit frame accessory is a one-piece welded unit with no additional welding required. This accessory is designed for in-floor applications. In general, a hole is cut in the concrete, the pit frame accessory is installed in the hole, then concrete is poured around and under the frame. Once cured, the scale platform is set into the frame and installation can be completed.

Standard duty frames are available in stainless steel for all Aegis Industrial floor scale sizes. The concrete work and frame setting are usually done by a contractor, with a scale technician completing the project by setting and installing the scale.

NOTE: *The Aegis Lift Deck Floor Scale is for pit installation only. For above ground installations contact Fairbanks' Solutions Group.*

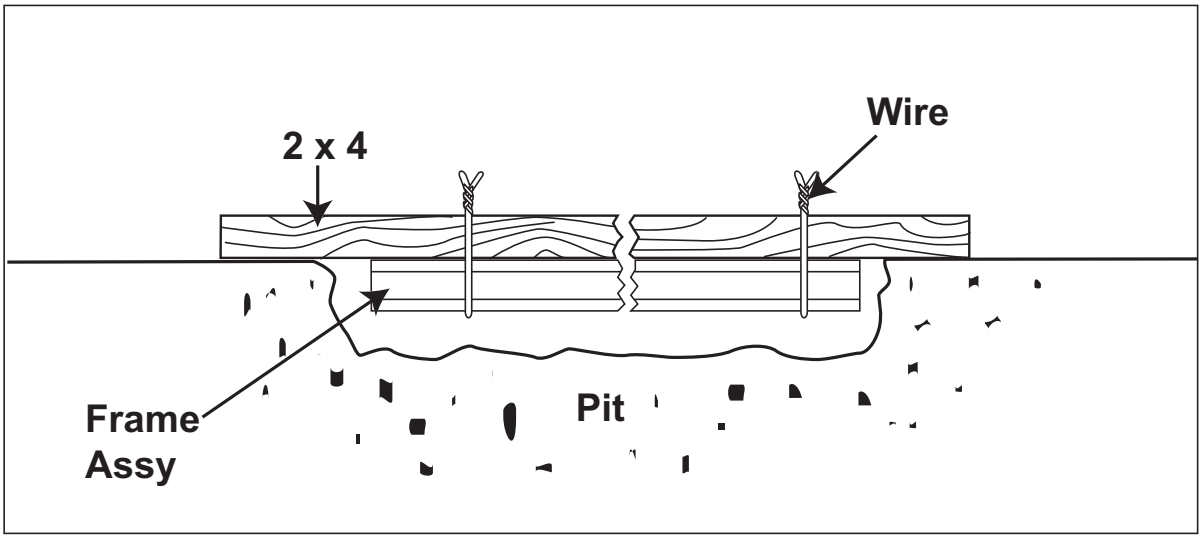
1. Place the pit frame in the approximate position it will occupy on the floor.

2. Mark out the position of the hole to be made. The hole MUST be a minimum of 12" larger than the pit frame on all sides. Should pit drainage be required, slope the pit floor to an installed drain while maintaining a level area at each corner. Use the drawing in Appendix III for measurements.

3. The hole must be deep enough to accommodate the pit coping, plus the thickness of the pit floor. Use the drawing in Appendix III for measurements.

4. Once the properly sized and prepared hole has been cut in the concrete floor, use these steps to help set the frame properly.

   - Set the frame in the hole supported at about the correct height.
   - Set two 2 x 4s on edge (longer than the width of the hole) across the opening.
   - Use soft wire to make 2 loops by twisting wire around each 2 x 4 and the frame.
   - With the frame supported by the wire and 2 x 4s, use a level to set the frame flush with the surrounding floor, level, and at the correct height by twisting or untwisting the wire.



50604-2

- Use the drawing in Appendix III for measurements, concrete specifications and amounts.

- Make sure the conduit for the scale cable is in place and secured into the frame opening.

- Pour the concrete around and under the frame ensuring a smooth and level finish.

- If a drain is required, form the pit to provide a slope in the pit floor to the drain. Refer to the drawings in the Appendix.

- Cure to a minimum of 2000 psi before cutting wire.

- Pull the cable through the conduit before placing the scale platform in the frame.

- Level the platform before installing the instrumentation.

Section 4: Maintenance and Service

A. Load Cell Replacement:

1. Remove power to the indicator.

2. Remove the platform access cover then the junction box cover and disconnect the failed load cell cable at the junction box. Loosen the gland bushing and tie a string or wire to the end of the cable to act as a pull wire. (Check that all cells have wire markers on the cable ends. If not, identify cells with wire markers or other means).

3. Lift the platform end and secure using wood blocks for safety.

4. Remove the load cell mounting bolts (use a ¾" socket), then the cell, pulling the load cell cable through the scale while leaving the pull string/wire in the scale.

5. Remove the foot assembly from the old cell and install on the new cell, using anti-seize on the threads.

6. Disconnect the pull string/wire from the old cell's cable and attach to the new cell's cable end. Pull the cable of the new cell through to the junction box, then mount the cell using anti-seize on the mounting bolts, torque to 90 ft/lbs.

7. Lower the scale to the surface removing the safety blocks.

8. Ensure that the weight is shared equally by all four (4) feet. Connect the load cell wires into the junction box, tighten the box gland bushing(s) then test and calibrate the scale. Replace the box cover and torque all screws to 18-20 in/lbs. Replace the platform access cover.

9. Recalibrate as necessary.

10. Load Cell Specifications:

Specifications	**Stainless Steel**
Material:	Stainless Steel 17-4ph
Resistance:	1000 Ohm
Rated Output:	2 mV/V
Safe Overload:	150%
Compensated Temp range:	-10ºC to 40ºC
Safe Operating Temp range:	-18ºC to 65ºC

B. Analog Junction Box and Optional QMB PCB Replacement:

1. Remove power to the indicator.

2. Open the platform access cover, then the box cover.

3. Loosen all gland bushing nuts.

4. Check that all load cells have wire markers on the cable ends. If not, identify cells with wire markers or other means, then disconnect the load cells' wires from the terminal blocks. Disconnect the home-run wires.

5. Remove the PCB, clean the box, then install the new PCB.

6. Reconnect all load cell and home-run wires to the new PCB.

NOTE: For analog systems, leave the box cover removed until all corner adjustments are completed.

7. Tighten all gland bushing nuts.

8. Replace the box cover and torque all screws to 18-20 in/lbs. Replace the platform access cover.

9. Recalibrate as necessary.

C. Foot Assembly Replacement:

1. Lift the platform end and secure using wood blocks for safety.

2. Remove the bolt which goes through the load cell and post of the foot.

3. Pull the foot assembly out of the load cell.

4. Lubricate the “O” ring on the new foot assembly and re-insert the post of the new assembly into the load cell.

5. Align the bolt hole in the part with the bolt hole in the load cell.

6. Install the bolt and tighten.

7. Removing the safety blocks, lower the scale to the surface.

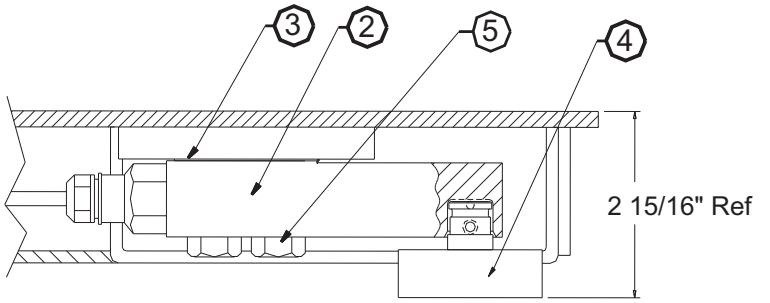
8. Ensure that the weight is shared equally by all four (4) feet.

Section 5: Parts

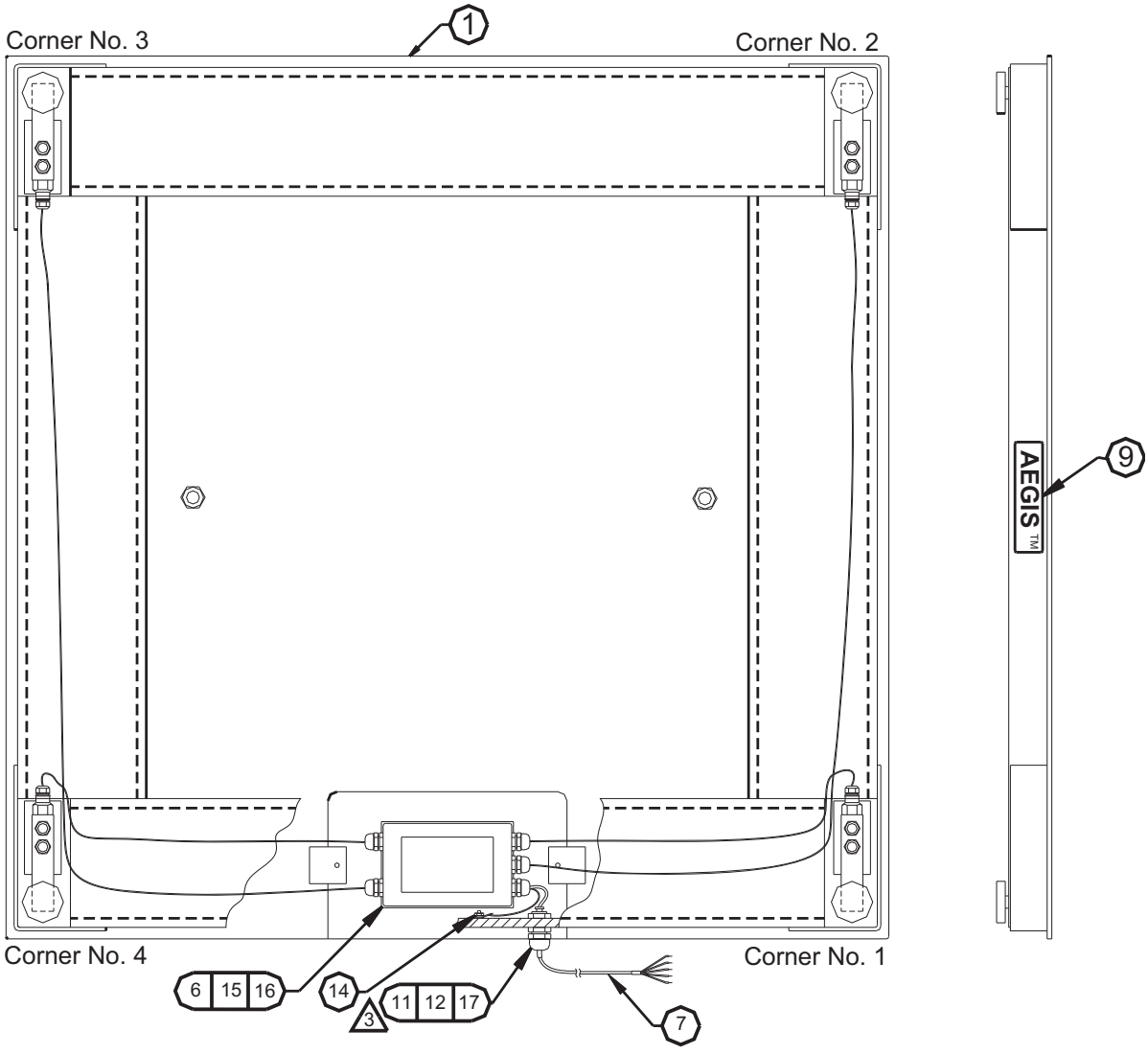
A. Stainless Steel Platforms

Item	Part#	Description	Models
1	See Appendix I	Platform Weldment	See Appendix I
2	63895	Load Cell, 1K LCF HR 4060-2	1K, 2.5K
2	63896	Load Cell, 2.5K LCF HR 4060-3	5K
2	63897	Load Cell, 5K LCF HR 4060-4	10K
3	66754	Load Cell Shim	ALL
4	63899	Foot Assembly	ALL
5	54503	Load Cell Mtg Bolt ½'-20 x 1 ¾"	ALL
6	67171	Analog Junction box	ANALOG
	96141	PCB for Analog box	ANALOG
6	15291	QMB Junction box (optional)	INTALOGIX™
	15635	PCB for QMB box (optional)	INTALOGIX™
7	12838	Cable Assembly	ANALOG
8	11224	'Fairbanks Scales' Decal	ALL
9	63592	'Aegis' Decal	ALL
10		Serial Tag	Individual
11	17546	Liquid Tight Connector	ALL
12	14278	Lock Nut (for #11 connector)	ALL
14	54203	SS Hex Nut 10-24 (for ground)	ALL
15	14721	5" Velcro Loop (use with hook)	ALL
16	14722	5" Velcro Hook (use with loop)	ALL
17	11175	Rubber Bushing (for #11 conn)	ALL

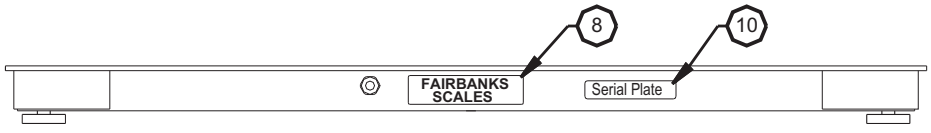
Parts Diagram - Stainless Steel Models



Section of Load Cell



Bottom View

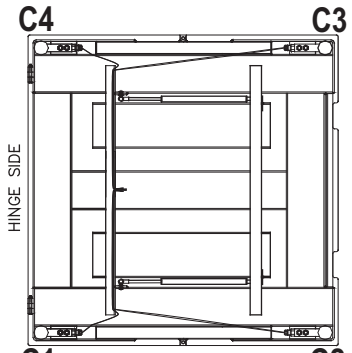


B. Stainless Steel Lift Deck Platforms:

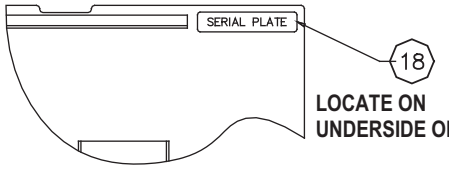
Item	Part#	Description	Models
1	See Appendix I	Platform Weldment	See Appendix I
2	23426	Load Cell, 1K	1K, 2.5K
2	23427	Load Cell, 2.5K	5K
2	23428	Load Cell, 5K	10K
3	66754	Load Cell Shim	ALL
4	63899	Foot Assembly	ALL
5	54503	Load Cell Mtg Bolt ½'-20 x 1 ¾"	ALL
*	67171	Analog Junction Box	ANALOG
*	96141	PCB for Analog box	ANALOG
*	23902	J-Box, Remote Cradle Bracket	ANALOG
*	15291	QMB Junction Box (optional)	INTALOGIX™
*	15635	PCB for QMB Box (optional)	INTALOGIX™
*	24176	J-Box, Remote Cradle Bracket	INTALOGIX™
7	23429	Gas Spring, 250 lb	ALL
8	23436	Ball Stud	ALL
9	23437	Safety Clip	ALL
10	11121	Flat Washer .31	ALL
11	11105	Hex Nut .31-18	ALL
12			
13	23834	Label, Pinch Point	ALL
14	23836	Label, Lifting Hazard	ALL
15	11224	Label, Fairbanks	ALL
16	17613	Wire Tie	ALL
17			
18		Serial Tag	Individual

* Not shown on parts diagram.

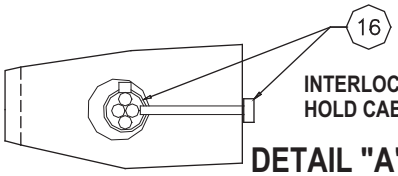
Parts Diagram - Stainless Steel Lift Deck 3' x 3' and 4' x 4' Models



BOTTOM VIEW OF SCALE

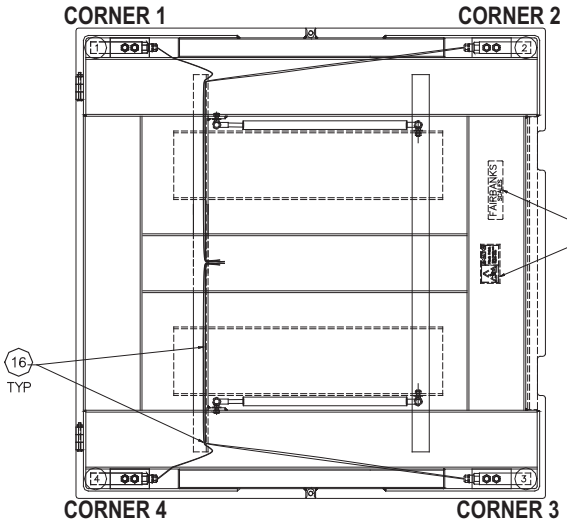


LOCATE ON UNDERSIDE OF DECK



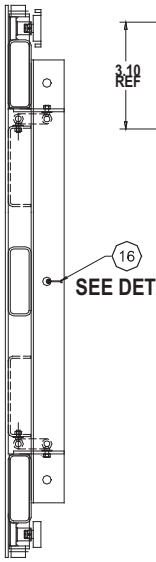
INTERLOCK WIRE TIES TO HOLD CABLES TO ANGLE

DETAIL "A"

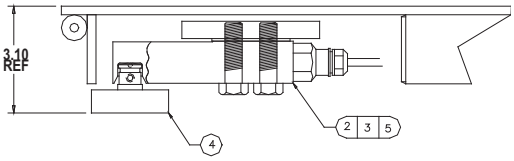


LOCATE THESE LABELS ON BASE FRAME ASSY TUBE

TOP VIEW OF SCALE

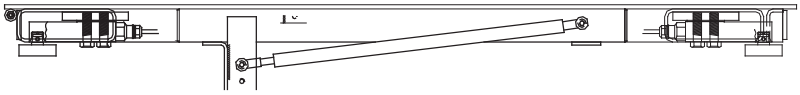


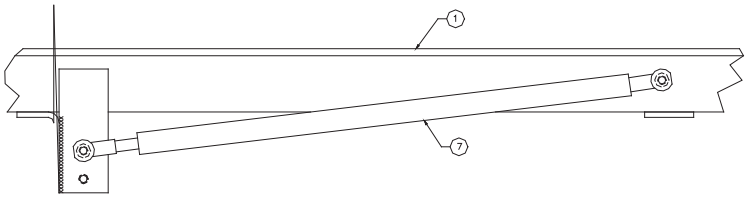
SEE DETAIL "A"

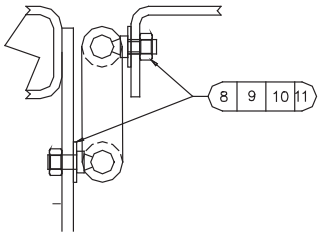


13.

15.





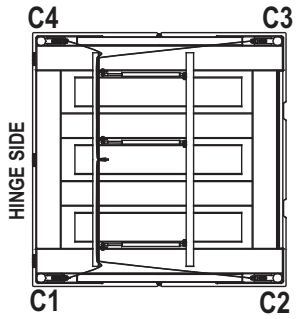


NOTES:

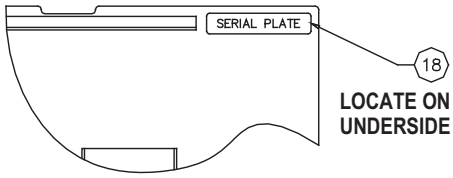
1. **APPLY ANTI-SEIZE SEALING COMPOUND TO BOLT THE LOAD CELLS TO THE MOUNTING BLOCKS. TORQUE TO 90 FT-LB.**
2. **PULL LOAD CELL CABLES SLIGHTLY TAUGHT AND USE WIRE TIES (ITEM 16) TO ATTACH THEM TOGETHER AND KEEP CABLES CLOSE TO BASE FRAME ANGLE.**
3. **SHIP ITEMS 14 AND 20 LOOSE WITH SCALE, LIFTING LABEL TO BE APPLIED TO THE TOP OF THE PIT COPING FRAME BETWEEN HANDLES.**

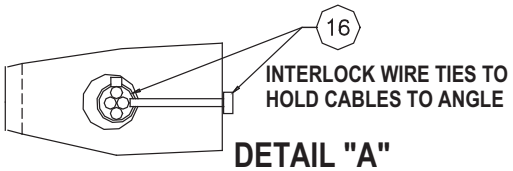
50604-7

Parts Diagram - Stainless Steel Lift Deck 5’ x 5’ Models

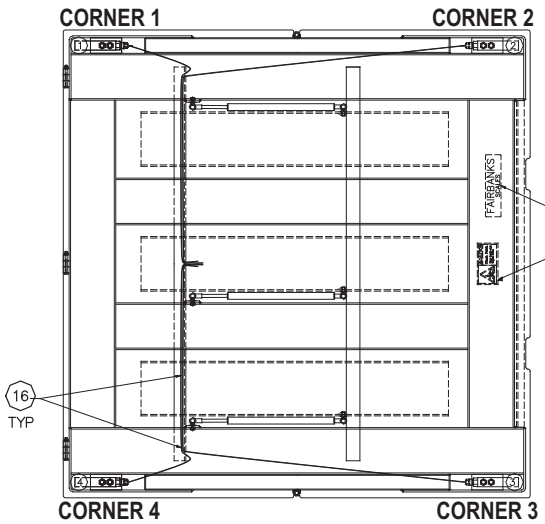


BOTTOM VIEW OF SCALE

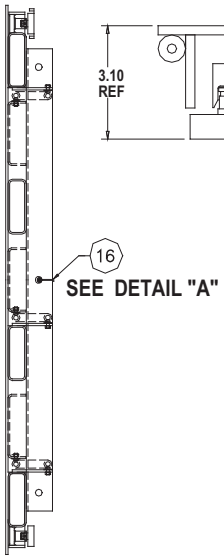


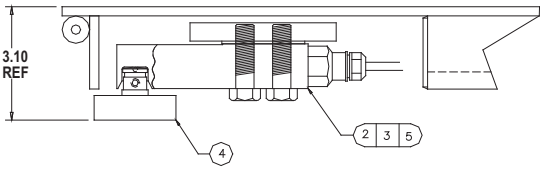


DETAIL "A"



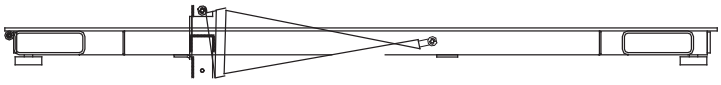
TOP VIEW OF SCALE

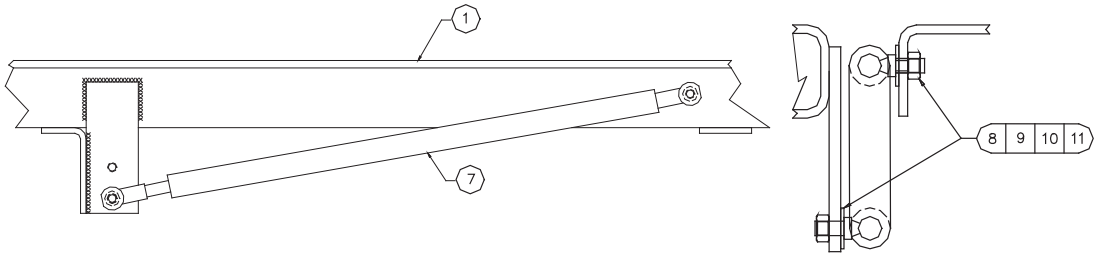




13.

15.





NOTES:

1. **APPLY ANTI-SEIZE SEALING COMPOUND TO BOLT THE LOAD CELLS TO THE MOUNTING BLOCKS. TORQUE TO 90 FT-LB.**
2. **PULL LOAD CELL CABLES SLIGHTLY TAUGHT AND USE WIRE TIES (ITEM 16) TO ATTACH THEM TOGETHER AND KEEP CABLES CLOSE TO BASE FRAME ANGLE.**
3. **SHIP ITEMS 14 AND 20 LOOSE WITH SCALE, LIFTING LABEL TO BE APPLIED TO THE TOP OF THE PIT COPING FRAME BETWEEN HANDLES.**

50604-8

Appendix I: Model Matrix

A. Analog Stainless Steel Series

Product #	Model	Size	Capacity	Platform Weldment
63715	PLF-HR3400-A1	30" x 30"	1000 lbs	63545
63716	PLF-HR3400-B1	3' x 3'	1000 lbs	63546
63717	PLF-HR3400-C1	3' x 3'	2500 lbs	63546
63718	PLF-HR3400-D1	4' x 4'	2500 lbs	63547
63719	PLF-HR3400-F1	4' x 4'	5000 lbs	63547
63720	PLF-HR3400-I1	4' x 4'	10000 lbs	63547
63721	PLF-HR3400-O1	4' x 5'	5000 lbs	63548
63722	PLF-HR3400-P1	4' x 5'	10000 lbs	63548
63723	PLF-HR3400-Q1	4' x 6'	5000 lbs	63549
63724	PLF-HR3400-R1	4' x 6'	10000 lbs	63549
63725	PLF-HR3400-G1	5' x 5'	5000 lbs	63550
63726	PLF-HR3400-J1	5' x 5'	10000 lbs	63550
63727	PLF-HR3400-H1	5' x 7'	5000 lbs	63551
63728	PLF-HR3400-K1	5' x 7'	10000 lbs	63551
63729	PLF-HR3400-S1	6' x 8'	10000 lbs	63552

B. Analog Lift Deck Stainless Steel Series -- Diamond Deck

Product #	Model	Size	Capacity	Platform Weldment
23824	PLF-HR3420-B1	3’ x 3’	1000 lbs	23811
23825	PLF-HR3420-C1	3’ x 3’	2500 lbs	23812
23826	PLF-HR3420-D1	4’ x 4’	2500 lbs	23460
23827	PLF-HR3420-E1	4’ x 4’	5000 lbs	23461
23828	PLF-HR3420-F1	4’ x 4’	10000 lbs	23462
23829	PLF-HR3420-G1	5’ x 5’	2500 lbs	23190
23830	PLF-HR3420-H1	5’ x 5’	5000 lbs	23191
23831	PLF-HR3420-J1	5’ x 5’	10000 lbs	23192

Appendix II: Accessories

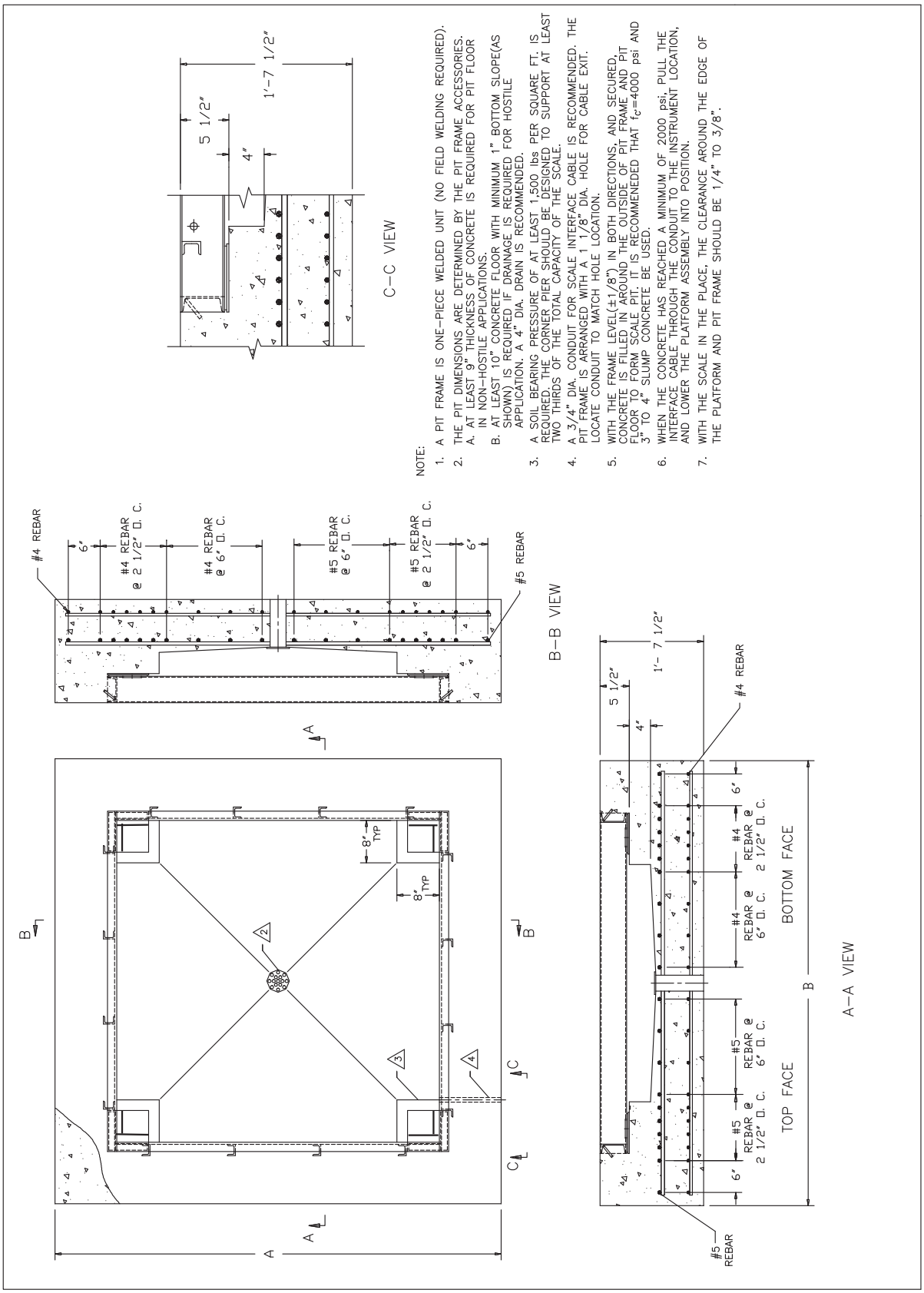
A. Stainless Steel Ramps, Bumper Guards and Pit Frames:

Size	Cap	Ramp	Bumper Guard	Pit Frame
30"	1K	64059 (30")		
3' x 3'	1K	63752 (3')	72199 (3')	63758
3' x 3'	2.5K	63752 (3')	72199 (3')	63758
4' x 4'	2.5K	63754 (4')	72195 (4')	63760
4' x 4'	5K	63754 (4')	72195 (4')	63760
4' x 4'	10K	63754 (4')	72195 (4')	63760
4' x 5'	5K	63754 (4')	72191 (5')	63762
4' x 5'	10K	63754 (4')	72191 (5')	63762
4' x 6'	5K	63754 (4')	72197 (6')	63764
4' x 6'	10K	63754 (4')	72197 (6')	63764
5' x 5'	2.5K	-	-	-
5' x 5'	5K	63756 (5')	72191 (5')	63766
5' x 5'	10K	63756 (5')	72191 (5')	63766
5' x 7'	5K	63756 (5')	72193 (7')	63768
5' x 7'	10K	63756 (5')	72193 (7')	63768
6' x 8'	10K	64061 (6')	72201 (8')	64063

B. Stainless Steel Bolt-Down Plates, Eyebolts, and Hole plugs:

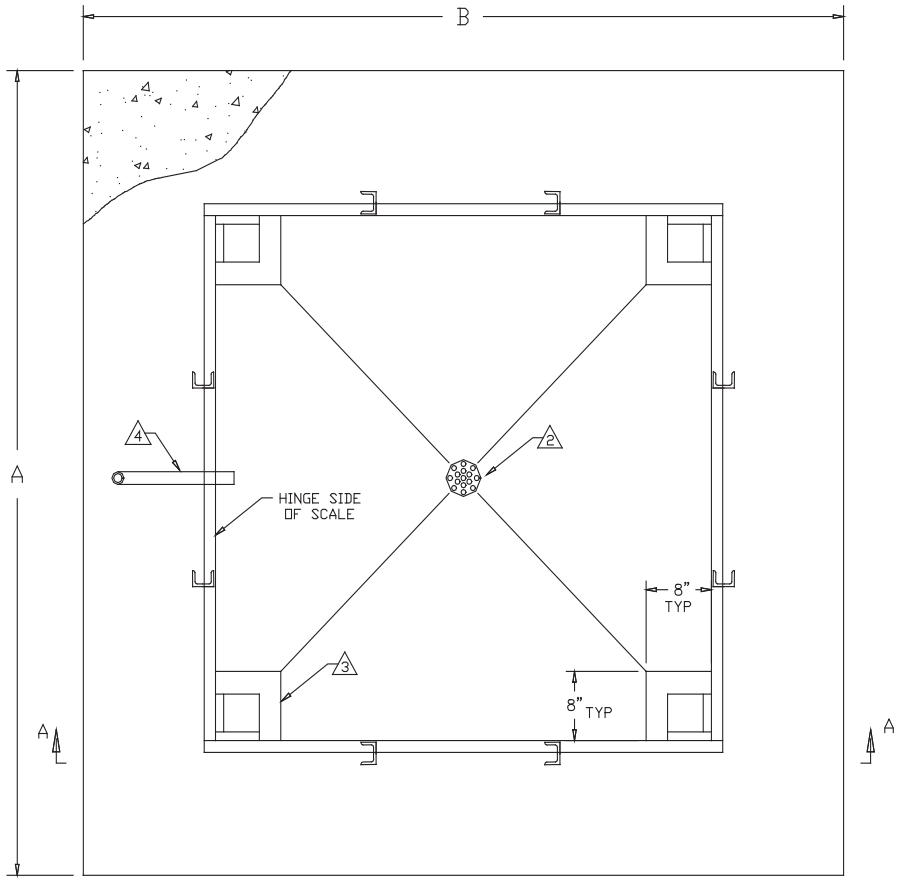
Size	Cap	Bolt-Down Plates	Eyebolts	Hole Plugs
ALL	ALL	63777 (Set of 4) 63779 (Set of 2)	70895 (2) (Mild steel)	70896 (2)

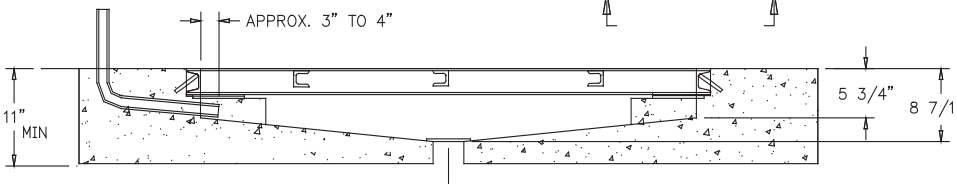
Appendix III: Standard Pit Frame and Installation Drawing


C–C VIEW
5 1/2″
4″
1′–7 1/2″
NOTE:
1. A PIT FRAME IS ONE–PIECE WELDED UNIT (NO FIELD WELDING REQUIRED).
2. THE PIT DIMENSIONS ARE DETERMINED BY THE PIT FRAME ACCESSORIES.
A. AT LEAST 9″ THICKNESS OF CONCRETE IS REQUIRED FOR PIT FLOOR IN NON–HOSTILE APPLICATIONS.
B. AT LEAST 10″ CONCRETE FLOOR WITH MINIMUM 1″ BOTTOM SLOPE(AS SHOWN) IS REQUIRED IF DRAINAGE IS REQUIRED FOR HOSTILE APPLICATION. A 4″ DIA. DRAIN IS RECOMMENDED.
3. A SOIL BEARING PRESSURE OF AT LEAST 1,500 lbs PER SQUARE FT. IS REQUIRED. THE CORNER PIER SHOULD BE DESIGNED TO SUPPORT AT LEAST TWO THIRDS OF THE TOTAL CAPACITY OF THE SCALE.
4. A 3/4″ DIA. CONDUIT FOR SCALE INTERFACE CABLE IS RECOMMENDED. THE PIT FRAME IS ARRANGED WITH A 1 1/8″ DIA. HOLE FOR CABLE EXIT. LOCATE CONDUIT TO MATCH HOLE LOCATION.
5. WITH THE FRAME LEVEL(±1/8″) IN BOTH DIRECTIONS, AND SECURED, CONCRETE IS FILLED IN AROUND THE OUTSIDE OF PIT FRAME AND PIT FLOOR TO FORM SCALE PIT. IT IS RECOMMENDED THAT f'_c=4000 psi AND 3″ TO 4″ SLUMP CONCRETE BE USED.
6. WHEN THE CONCRETE HAS REACHED A MINIMUM OF 2000 psi, PULL THE INTERFACE CABLE THROUGH THE CONDUIT TO THE INSTRUMENT LOCATION, AND LOWER THE PLATFORM ASSEMBLY INTO POSITION.
7. WITH THE SCALE IN THE PLACE, THE CLEARANCE AROUND THE EDGE OF THE PLATFORM AND PIT FRAME SHOULD BE 1/4″ TO 3/8″.
#4 REBAR
6″
#4 REBAR @ 2 1/2″ O. C.
#4 REBAR @ 6″ O. C.
#5 REBAR @ 6″ O. C.
#5 REBAR @ 2 1/2″ O. C.
6″
#5 REBAR
B–B VIEW
8″ TYP
8″ TYP
A
A–A VIEW
5 1/2″
4″
1′– 7 1/2″
#4 REBAR
#4 REBAR @ 6″ O. C.
#4 REBAR @ 2 1/2″ O. C.
BOTTOM FACE
TOP FACE
#5 REBAR @ 2 1/2″ O. C.
#5 REBAR @ 6″ O. C.
#5 REBAR
B
6″
6″

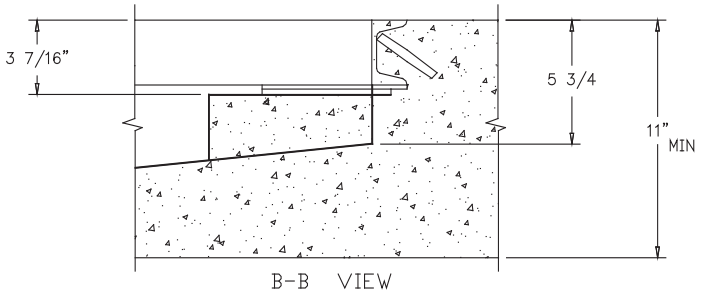
50604-9

STAINLESS STEEL SS MODEL / PART NO.	PLATFORM SIZE	A	B
63758	3′ X 3′	5′	5′
63760	4′ X 4′	6′	6′
63766	5′ X 5′	7′	7′





A-A VIEW
INSTALLATION OF PIT FRAME
POURED CONCRETE BASED ON THE SIZE
1K-10K



B-B VIEW

NOTE:

1. A PIT FRAME IS ONE-PIECE WELDED UNIT (NO FIELD WELDING REQUIRED).
2. THE PIT DIMENSIONS ARE DETERMINED BY THE PIT FRAME ACCESSORIES.
   A. AT LEAST 6″ THICKNESS OF CONCRETE IS REQUIRED FOR PIT FLOOR IN NON-HOSTILE APPLICATIONS.
   B. AT LEAST 11″ CONCRETE FLOOR WITH MINIMUM 3″ BOTTOM SLOPE(AS SHOWN) IS REQUIRED IF DRAINAGE IS REQUIRED FOR HOSTILE APPLICATION. A 4″ DIA. DRAIN IS RECOMMENDED.
3. A SOIL BEARING PRESSURE OF AT LEAST 1,000 lbs PER SQUARE FT. IS REQUIRED. THE CORNER PIER SHOULD BE DESIGNED TO SUPPORT AT LEAST TWO THIRDS OF THE TOTAL CAPACITY OF THE SCALE.
4. A 1 1/4″ DIA. CONDUIT FOR THE 4 LOAD CELL CABLES IS RECOMMENDED. LOCATE CONDUIT APPROX AS SHOWN WITH CONDUIT SLOPED FOR DRAINAGE.
5. WITH THE FRAME LEVEL(±1/8″) IN BOTH DIRECTIONS, AND SECURED, CONCRETE IS FILLED IN AROUND THE OUTSIDE OF PIT FRAME AND PIT FLOOR TO FORM SCALE PIT. IT IS RECOMMENEDED THAT $f_{C'}$=3500 psi AND 3″ TO 4″ SLUMP CONCRETE BE USED.
6. WHEN THE CONCRETE HAS REACHED A MINIMUM OF 2000 psi, PULL THE LOAD CELL CABLES THROUGH THE CONDUIT TO THE JUNCTION BOX LOCATION, AND LOWER THE PLATFORM ASSEMBLY INTO POSITION. ROUTE THE CABLES UNDER THE SCALE AS TO NOT INTERFERE WITH WEIGHING ON SCALE. SEAL THE ENDS OF THE CONDUIT TO KEEP WATER OUT.
7. WITH THE SCALE IN THE PLACE, THE CLEARANCE AROUND THE EDGE OF THE PLATFORM AND PIT COPING SHOULD BE 1/4″ TO 3/8″.

NO.	BY	DATE	REVISION
1	JSH	4/26/02	RELEASED

The material and information contained herein is confidential and is the property of Fairbanks Scales and is not to be used, disclosed, copied, transfered or repoduced without the prior written permission of Fairbanks.

Unless otherwise specified: dimensions are in inches
Tolerances: Fractions: ±1/16″
Angles: 1°
3 place decimals:
2 place decimals:
Hole diameters: ±1/32″
MATERIAL
FINISH

FAIRBANKS SCALES
Meridian, Mississippi

name: PIT INSTALLATION 1 - 10K, SS LIFT DECK SCALES

date: 4/26/02
material:
N/A scale in. per ft.
sheet 1 of 1
drawn by JSH
checked by JSH
approved by JSH

23438

This page intentionally left blank.